

UltraDynamics®

Series 8103-TF

Industrial Thin Film High Intensity Contact Purifier

The UltraDynamics® Industrial, Thin Film, High Intensity Contact Purifier, Series 8103-TF, represents one of the simplest and most practical means of disinfecting liquids with high UV doses. The purifier is uniquely suitable for process applications where poor transmission exists, for example, for disinfecting fluids such as liquid sweeteners and liquid sugar. The placement of the quartz encapsulated UV lamp provides the optimum exposure of the fluid to the ultraviolet rays. The quartz and UV lamp are arranged so that the fluid will receive equal intensity throughout the chamber. Disinfection is accomplished without the use of heat or harsh chemicals, without affecting taste or adding irritating or allergenic properties to the liquid. UltraDynamics® purifiers have been proven effective in countless domestic, commercial, industrial and laboratory applications for over 50 years.

Series 8103-TF ultraviolet purifiers are ruggedly built. The reaction chamber is constructed from 316L stainless steel. The system is designed to minimize dead zones, shadowing, and welds. Very economical, these purifiers operate with low power consumption at pennies a day and they are easy to maintain.

A complete purifier system consists of the reaction chamber, standard intensity 254nm UV lamp, pure fused quartz sleeve and remote plug-in power box with LED lamp-out indicator. Operation from 220 Vac and 185nm ozone lamps are available options.



Features:

- ◆ Simple, compact, reliable design
- ◆ Fast, easy installation
- ◆ Low power consumption
- ◆ Economic to operate
- ◆ Remote power supply pack
- ◆ Built-in lamp out indicator
- ◆ Easy access to UV lamp for maintenance
- ◆ Flow rate capacities from 0.5 GPM to 5.5 GPM
- ◆ Uniquely designed for concentrated UV dose for process application where transmission is poor.
- ◆ Applications include disinfection of liquids with poor transmission, reduction TOC requirements, highly resistant micro-organisms, photo chemical reaction, and general R & D



TECHNICAL DATA

Material: Chamber constructed of 316L stainless steel, electropolished and passivated.

Operating Pressure: 150 psig

UV Lamp: Low pressure, standard intensity, rapid start; 254nm or 185 nm

UV Dose: Dependant on fluid quality.

Protective Sleeve: Pure fused quartz sleeve

Power Requirements: 120 Vac, 60 Hz or 220 Vac, 50 Hz (must specify)

Indicators: LED display light to indicate lamp ON/OFF status

Inlet/Outlet Size: 1/4" NPT

Power Box: Remote plug-in type, grounded and fused.

Model No.	Dimensions		Inlet/Outlet Size	Flow (GPM) Capacity
	Diameter	Height		
TF-1505	1.5"	5.0"	1/4"	0.25
TF-1506	1.5"	6.0"	1/4"	0.25
TF-1508	1.5"	8.0"	1/4"	0.50
TF-1512	1.5"	12.0"	1/4"	0.65
TF-1516	1.5"	16.0"	1/4"	1.00
TF-1535	1.5"	35.0"	1/4"	2.50
TF-1564	1.5"	64.0"	1/4"	5.00
TF-2008	2.0"	8.0"	1/4"	1.00
TF-2012	2.0"	12.0"	1/4"	1.25
TF-2016	2.0"	16.0"	1/4"	2.25
TF-2035	2.0"	35.0"	1/4"	5.50
TF-2505	2.5"	5.0"	1/4"	0.30

Warranty and Capability

Severn Trent Services UltraDynamics® Ultraviolet Disinfection products are warranted for eighteen months from the date of invoice, or twelve months from the date of installation, whichever is earlier.

Disinfection technologies, water quality monitors and instrumentation for water and wastewater are areas of specialization. Over 35 years of industrial and municipal application experience in the water and wastewater industries.

Brief Specification

The Ultraviolet Disinfection System shall incorporate a single low pressure, germicidal UV lamp positioned in a 316L stainless steel reactor vessel. The system shall include a UV lamp, protective quartz sleeve, and a remote power supply for (120 Vac)(220 Vac) 50/60 operation with built-in lamp failure indicator.

The UV disinfection unit shall provide disinfection for high purity water up to a maximum flow rate as indicated above. Process connections shall be (1/4") NPT for inlet and outlet.

The UV lamp and quartz sleeve shall be easily accessible without the use of tools.

The UV Disinfection System shall be UltraDynamics® Series 8103-TF.

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